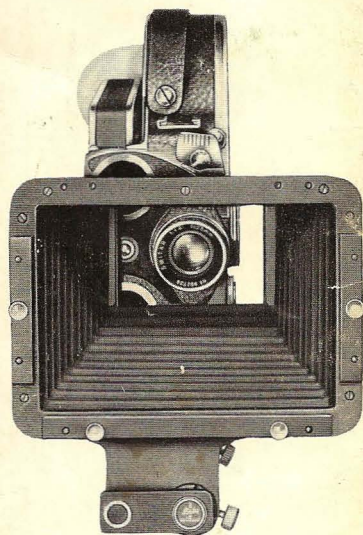


MATTE BOX



BOLEX

THE BOLEX MATTE BOX is an indispensable tool for the advanced moviemaker.

The Bolex Matte box is an ideal and versatile accessory to the Bolex H8 and H16 Reflex Cameras.

The Bolex Matte box opens up undreamed of possibilities of expressing yourself on the screen.

The Bolex Matte box permits tricks and effects up to now limited to professional film makers:

Entering a room through a keyhole

Viewing a scene through binoculars

Seeing images through masks

Freezing images

Wipes

Split frame scenes

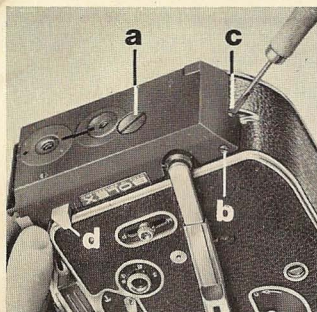
Making the same person appear repeatedly in the same scene

On location titling

The Matte box serves furthermore as a portable titler, an extended lens hood, a filterholder, a support for special accessories.

The following pages describe some of the practical applications of the Bolex Matte box which comes with a complete set of masks and accessories.

Of course, these examples are by no means exhaustive. The Bolex Matte box leaves free rein to your ingenuity, talent and creative imagination.



FITTING THE MATTE BOX ONTO YOUR CAMERA IS EASY

The Bolex Matte box fits on to a carefully designed base. This base must, of course, be attached to your camera. To attach the base, follow the instructions given in figure opposite:

Tighten screw (a) firmly with the special key supplied with the Matte box.

Turn screw (b), which rests on the housing, in either direction until the sides of the base run parallel to the side of the film camera.

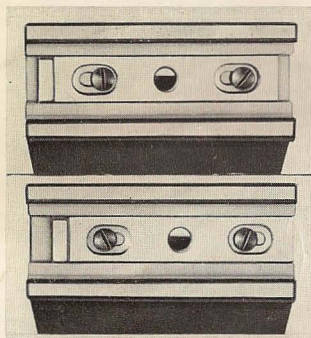
Screw (c) locks screw (b) in place.

To improve the stability of the base, set flange (d) against the camera by means of the adjoining small screw.

And now we are ready for the lens hood

The sliding rail stop (kept in place by two screws) will occupy different positions, depending on which camera is used: H16RX (No. 1); H8RX (No. 2). See illustration.

Insert the lens hood support into the sliding rail at the front of the base, then tighten and lock the knurled screw.



No. 1

No. 2

And now we are ready for the lens hood

The sliding rail stop (kept in place by two screws) will occupy different positions, depending on which camera is used: H8RX (No. 1); H16RX (No. 2). See illustration.

Insert the lens hood support into the sliding rail at the front of the base, then tighten and lock the knurled screw.

Centering the lens hood

When the lens hood is correctly mounted, the front and rear frames should be approximately centred in relation to the taking lens. To perfect the centering, proceed as follows:

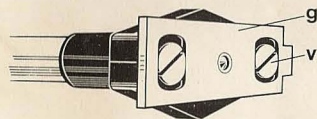
- horizontally, by adjusting the setting of the base by means of the screw (b) and the flange (d)
- vertically, by adjusting the position of the base plate (g). To do this you must:
 - remove the lens hood
 - loosen the carrier screws (v)
 - raise the plate (g) the necessary distance (indication marks are picked out on each side of the plate to facilitate regulating height).

After locking the two screws (v), fix the lens hood on the sliding rail and check the centering again.

These centering operations are made once and for good.

One thing you should not forget:

In order to enable the taking lens to penetrate into the interior of the Matte box it will be sometimes necessary to remove too long lenses from the turret.



With which you can use a wide range of lenses for both the H8RX or H16RX cameras (starting from 5.5 mm to 100 mm).

When using wide angle lenses, it is recommended to extend the bellows to only 2/3 of their full length.

If you are working with a telephoto lens, you can improve the efficiency of the Matte box by attaching a mask to the frame in front of the hood (fig. below).

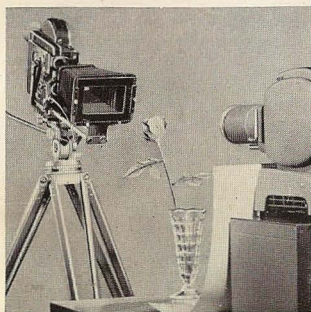
THE MATTE BOX CAN BE USED FOR A LARGE VARIETY OF TRICKS

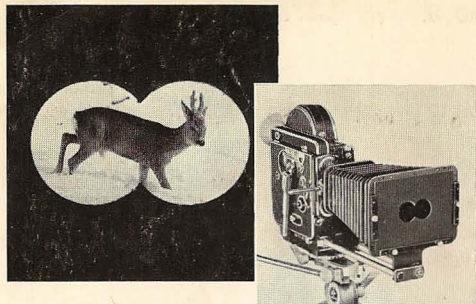
Each of the two mobile frames, one in front of and the other behind the bellows, is equipped with a set of sliding rails; the front frame sliding rails can be removed to allow for the use of different masks to achieve a variety of effects.

Front frame - the sliding rails can accommodate one or two masks which have a thickness of 3/64" or a glass plate which has a thickness of up to 1/8". Furthermore several masks can be mounted on the front frame at the same time.

Rear frame - equipped with two fixed sliding rails with two stops. Examples on pages 2 and 8 show different applications for the rear frame.

The frames, too, move along two sliding rails, one of which is graduated in mm and inches.





JUST AN IDEA... A SCENIC VIEW AS SEEN THROUGH BINOCULARS

The problem is to fit an image which may be scenery, a person, an animal, a ship, into a set outline which is smaller than the image itself.

What do you need? **A simple opaque mask and transparent acetate.**

How do you proceed? **Place the transparent acetate into the front frame sliding rail, focus the subject, trace the outlines with a pencil, transfer the outline onto the piece of cardboard and cut it out.**

To obtain a relatively sharp outline of the mask, use a lens with a great depth of field (standard or wide-angle lens).

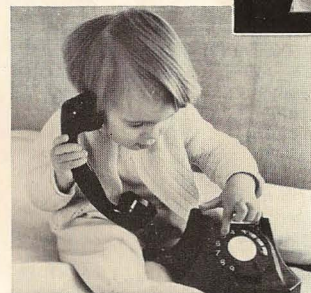
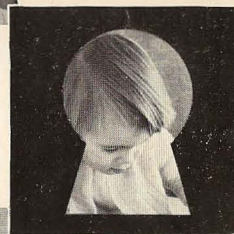
VIEWING A ROOM THROUGH A KEYHOLE

or through a very small opening...

(This impression is easy to create because of the very smooth axial movement of the lens hood bellows).

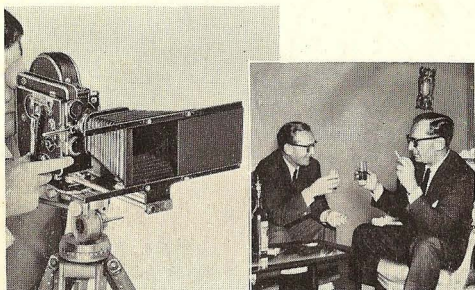
What do you need? **A simple opaque mask and transparent acetate.**

How do you proceed? **The opaque mask is mounted in front of or behind the bellows. We recommend the latter position if the outlines of the cut-out are to disappear at the end of the take. Mount the acetate on the rear frame. Frame the scene. Draw the outlines of the opening required on the acetate. Transfer these outlines onto the opaque mask. Cut out the opening. Insert the cut mask into the rear frame. Start shooting with the rear frame pushed forward, then move it slowly back towards the lens. The mask opening widens, the outlines blur, then fade away while the take continues.**



SPLIT FRAME SCENES

The split frame trick which always leaves a strong impression on the audience is easily done with a Bolex Matte box.



What do you need? **An opaque mask, an opaque counter-mask, a transparent acetate sheet.**

How do you proceed? **Each section (usually 1/2) of the frame is exposed separately. In the first take a mask covers one part of the picture. After rewinding the film with closed shutter, the person to be doubled will occupy the space previously covered by the mask, while the scene exposed during the first take is now masked. The dimensions of the mask and the counter-mask must be clearly pre-established and matched on the acetate.**

The procedure is the same for triple, quadruple, etc., exposure with 1/3 or 1/4, etc., of the image being exposed at each take. It is essential to use the same lens for the successive takes.

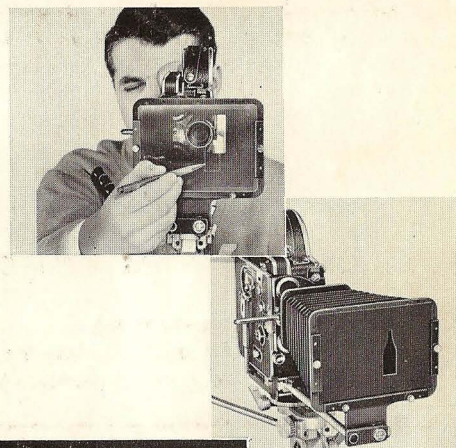
A CHILD AT THE BOTTOM OF A BOTTLE

A child seated at a table looks at his "double" appearing in a bottle standing on the table.

What do you need? **An opaque mask, a counter-mask mounted on glass, a transparent acetate sheet.**

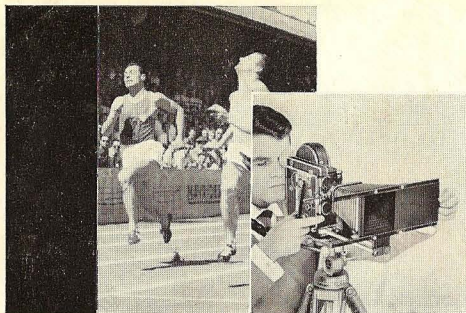
How do you proceed? **This is also a double exposure. First frame and focus the child at a distance sufficient to enclose his silhouette within the outlines of a bottle cut out of a mask and previously traced on the transparent acetate sheet.**

After rewinding, the child is filmed at the table and framed in such a way that the counter-mask mounted on glass comes superposing on a real bottle standing on the table. Many other similar effects are possible.



WIPES

In addition to the transition effect made possible by the variable shutter of the H8 Reflex and H16 Reflex (fade ins, fade outs, dissolves), the Bolex Matte box also offers the possibility of well-known transitions such as wipes and opening or closing circles.



What do you need? **A standard mask $4'' \times 5\frac{1}{2}''$.**

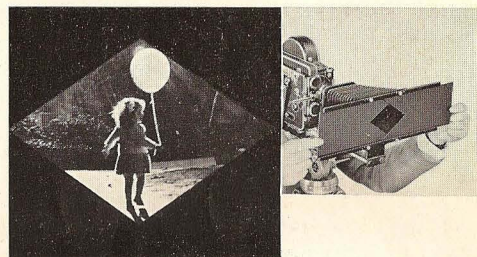
How do you proceed? **At the end of the sequence move the mask slowly and evenly along the sliding rail until it completely covers the scene. Move the mask from the covered position until the field is completely uncovered.**

EFFECT OF OPENING OR CLOSING CIRCLE

An image is opened from or closed towards the center. In other words the field widens or shrinks progressively in relation to the center of the image. It is frequently used as a transition between scenes with centered object.

What do you need? **2 cut-out masks.**

How do you proceed? **At the end of the scene, move the two masks towards each other until the subject is completely blacked out. At the beginning of a scene, move the two masks away from each other.**



A FIGURE EMERGING OUT OF THE MIST

This effect will introduce into your film an element of mystery.

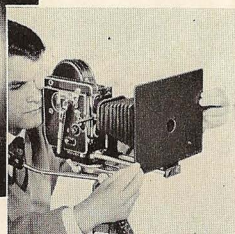
What do you need? **A glass plate covered with vaseline or similar greasy substance.**

How do you proceed? **Fit the glass plate in the front frame. Shoot while slowly moving the front part of the lens hood to the rear. At the end of the take, the subject filmed through the grease covered plate appears clearly in a halo.**



LIGHTING UP THE DARK WITH A LAMP

In this way you can produce a fascinating dramatic effect.



What do you need? An opaque or translucent mask bigger than the front frame and provided with a circular opening.

It is essential to remove all the front frame sliding rails. While shooting, move the mask by hand while it is pressed against the front frame. This movement must be clearly timed if you wish to single out a subject in the beam. With the help of an assistant you can vary the size of beam by moving the frame along its axis.

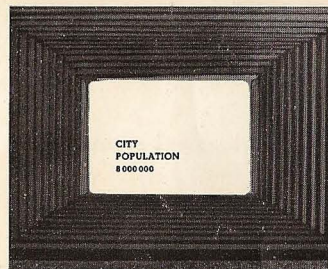
ON THE SPOT TITLING

It is now easier to title films on the spot by directly superimposing the text on to the actual moving background either in black or with translucent letters.

Remember: **For black letters you need a clear background.** At present white letters on a dark background are more popular, but professionals often use black letters to achieve a more striking effect.

What do you need? **A glass plate or a sheet of transparent acetate.**

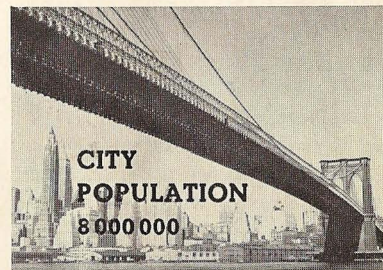
How do you proceed? **You start by drawing or gluing the letters onto the glass or acetate plate.** The background may be a real scene, a picture, a map, etc.



Focus the title

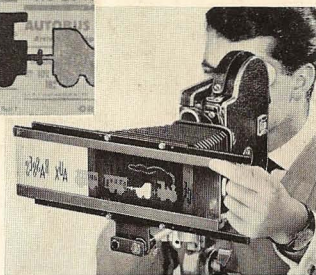
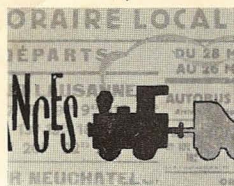
It is essential to use a standard or wide-angle lens which permits close up focusing. The reflex system of the camera gives the possibility to determine accurately the sharpness of the titles and of the background.

Do not forget that the focusing ring, the camera running speeds and the variable shutter of the camera will help considerably in obtaining optimum results.



FANCY EFFECTS

Instead of fixed titles you can have moving titles over a real background!



What do you need? **A transparent acetate sheet mounted onto the large sliding rails of the front frame.**

How do you proceed? **With Indian ink and opaque retouching colour you draw the design and the titles on the acetate band which you move in front of the lens while filming the background (a time-table on the illustration). Give it a try and you will be amazed by the results.**

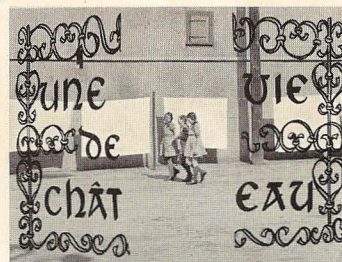
OTHER FANCY EFFECTS

"Open" titling on the real scene.

What do you need? **2 transparent acetate curtains swinging on adhesive tape "hinges".**

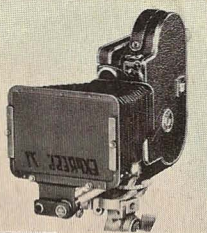
It is advisable to have a pointer handy to facilitate handling. You will also need one assistant.

How do you proceed? **Focus on the title leaving the background blurred. Film the title with closed curtains for as long as necessary. Your assistant will then slowly open the 2 curtains on the blurred background while progressively adjusting the focusing for the background. The sequence continues on this background which may be animated or still. By the same process you can make your titles swing to the left or to the right or moving up or down with a transparent, colored or opaque curtain.**



LIGHT LETTERS ON A DARK ANIMATED BACKGROUND

As you see it in professional movies!



What do you need? **A fairly stout opaque mask with the letters cut out, a sheet of transparent acetate.**

How do you proceed? **By means of double exposure.**

First take: **Film the title mounted on the front frame. The lighting may be reduced to make the title stand out clearly from the opaque mask. After closing the variable shutter, rewind the exposed portion of the film.**

Second exposure: **Deliberately underexpose the chosen background which should be, preferably, animated. A sheet of transparent acetate with the outlines of the letters in Indian ink will enable you to position the title on the background. This sheet of transparent acetate must be removed before shooting views inserted into titles.**

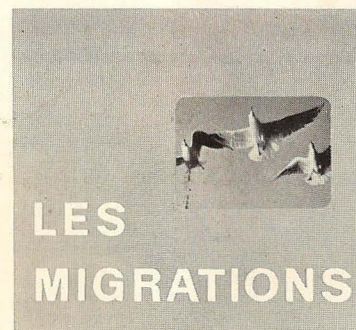
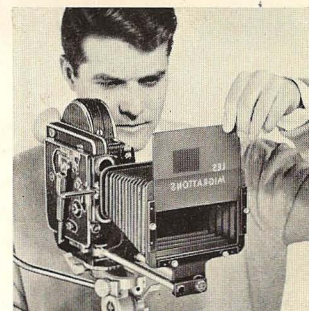
VIEWS INSERTED INTO TITLES

On a smaller screen within the mask you can show views illustrating the title.

What do you need? **A mask and a counter-mask.**

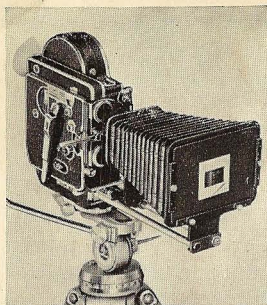
How do you proceed? **You first film a long scene through the rectangular cut-out of the mask. After rewinding the exposed portion of the film, you shoot the counter-mask on which you have drawn the title. When the film is projected, title and scene will pass simultaneously.**

Following the same principle you can choose a real scene on a T.V. set. Similarly you can inscribe your titles on a panel within real sets to be filmed.

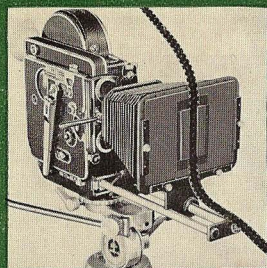


STILLS TRANSPARENCIES

For illustration let us take a stained-glass window. It is not always easy to film in a church – even with the aperture wide open – and get perfect colors.



However, you can easily insert a still view in your film by shooting a transparency through your Bolex Matte box, thus benefiting of optimum exposure and focusing conditions. The slide is mounted on strong black cardboard and placed in the front frame. The bellows at the rear will protect the lens from any stray light. A diffusing white surface such as an opal glass placed at some distance from the Matte box, will help to obtain an even lighting of the slide.



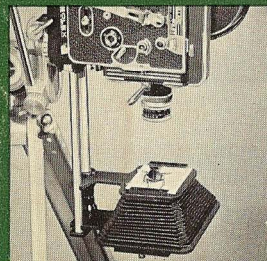
FREEZING AN IMAGE

What fun to suddenly freeze a moving figure for a few seconds. It is a trick that always is a hit in a movie-showing. Obviously this trick can only be made at the cutting stage.

First select the image to be frozen. The frame must be very sharp. With the help of macro-cinematography extension tubes reshoot it by fitting it into a mask which is mounted in front of the Matte box. When this film is developed cut it into the original film at the exact point where you want the frozen scene to come in. Two splices will do the trick. Great care must be taken when refilming the "frozen" scene. Focusing and lighting must be rigorously controlled.

THE BOLEX MATTE BOX SERVES AS A SUPPORT FOR VARIOUS DEVICES

The rear frame is a universal filter carrier, designed in particular for square standard $3'' \times 3''$ filters of a thickness of $1/8''$ or less, as well as the Arriflex filters ($3'' \times 2 \frac{3}{8}''$). No orientator required. Adjustable polarizing filter can also be fitted. A totally closing iris, an automatic fader and a number of other accessories can also be adapted to the rear frame by using the threaded holes designed for this purpose.



AND WHAT IS MORE

The Bolex Matte box will be appreciated by the scientist as a small portable table for macrocinematography.

Focusing is simplified: Simply adjust the rear frame for optimum sharpness. It is easy to film either horizontally or vertically. In the horizontal position the object to be filmed must be pinned or cemented to a strong cardboard which in turn is mounted on the rear frame sliding rails.

SOME THINGS TO KEEP IN MIND BEFORE TITLING WITH THE BOLEX MATTE BOX

1. The bellows can be extended from 2" to 7".
2. Any flat and preferably black cardboard paper can be used for the opaque masks. However, we would advise the use of the black "Presspan" paper masks, thickness $1/32$ " (supplied with the Matte box). They have the advantage of being perfectly smooth and therefore sliding easily along the rails. For color film it is often better to replace the black masks by semi-transparent, colored masks. These may be made out of any semi-transparent colored material which if not rigid should be pasted onto a sheet of transparent acetate or a glass plate.

Dimensions of masks and glass

On the front frame:	cardboard or acetate	4" \times 5 1/2"
	glass plate	3 15/16" \times 5 1/16"
On the rear frame:	glass plate, cardboard or acetate 2 3/8" \times 3"	

ACCESSORIES SUPPLIED WITH THE MATTE BOX

For the front frame:

- 9 transparent sheets of acetate.
- 1 glass plate.
- 10 black "Presspan" cardboard masks with samples cut-out.
- 2 long sliding rails.

For the rear frame:

- 1 glass plate.
- 10 black "Presspan" cardboard masks with samples cut-out.
- 1 special key.



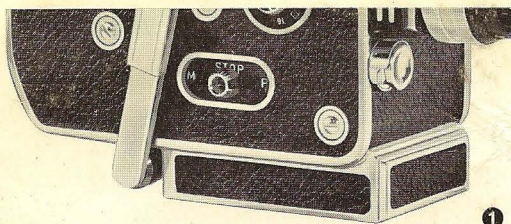
Photo-Brandt
Arosa

PAILLARD S.A.

Sainte-Croix (Switzerland)

ME 525/26 Anglais

Printed in Switzerland



1

FITTING THE MATTE BOX TO CAMERAS WITH INTEGRAL FLAT BASE

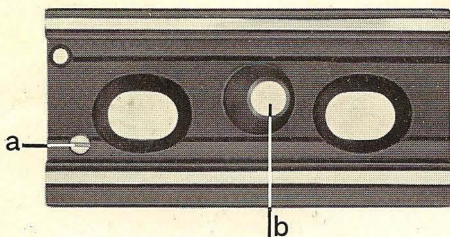
The introduction of the integral flat base (fig. 1) on H16 Reflex cameras (from No. 202,501) and H8 Reflex cameras (from No. 198,591) changes the method of Matte Box mounting and the separate camera base is no longer necessary. The Matte Box is attached to these cameras by means of a slide block (figs. 2 and 3).

Before the lens hood can be mounted, the following operations must be carried out.

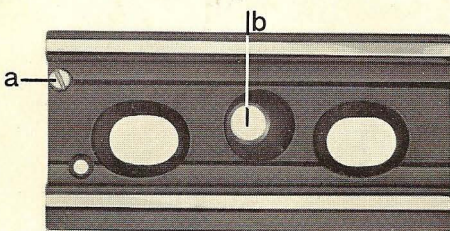
Adjustment of the slide block

The stop screw (a) and the eccentric (b) must be in the positions shown in fig. 2 (for H16 Reflex) and fig. 3 (for H8 Reflex).

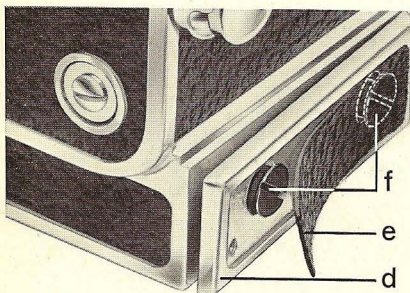
To reposition the eccentric, loosen the screw (c) – see fig. 5 – about four turns, push the eccentric out of its seating, turn it through 180° and then tighten screw (c).



2

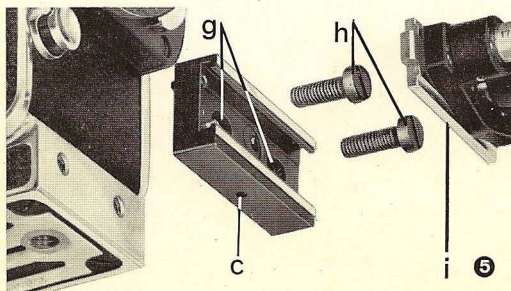


3



Fitting the slide block to the camera

First remove the strip of leather (e) from the front of the base. The front plate (d) can now be removed by unscrewing the two fixing screws (f) (see fig. 4). Now replace the front plate with the slide block, using the screws (h) (see fig. 5).



4

Centering the lens hood

The holes (g) in the slide block are elongated to allow for horizontal centering of the lens hood.

Before completely tightening the fixing screws (h) insert the lens hood support plate into the slide block and check the horizontal centering of the lens hood with respect to the taking lens. If necessary, correct the centering by moving the slide block in either direction. Now remove the lens hood and tighten the fixing screws (h).

Vertical centering of the lens hood is carried out as indicated on page 1 of the instruction manual.

The slide block can be left permanently attached to the camera.

Suppl. ME 525/36 Anglais

Printed in Switzerland